

DATE IN 03/09/13	SUSPENSE	ENGINEER PRG	LOGGED IN 05/10/13	TYPE DHC	APP NO. PPRG1313059310
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ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION
 - Engineering Bureau -
 1220 South St. Francis Drive, Santa Fe, NM 87505



30-045-35422
 Logos #6
 Logos

ADMINISTRATIVE APPLICATION CHECKLIST

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

Application Acronyms:

[NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]
[DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
[PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
[WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
[SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
[EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

[1] TYPE OF APPLICATION - Check Those Which Apply for [A]

[A] Location - Spacing Unit - Simultaneous Dedication
☐ NSL ☐ NSP ☐ SD

Check One Only for [B] or [C]

[B] Commingling - Storage - Measurement
☒ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery
☐ WFX ☐ PMX ☐ SWD ☐ IPI ☐ EOR ☐ PPR

[D] Other: Specify _____

[2] NOTIFICATION REQUIRED TO: - Check Those Which Apply, or ☐ Does Not Apply

[A] ☐ Working, Royalty or Overriding Royalty Interest Owners

[B] ☐ Offset Operators, Leaseholders or Surface Owner

[C] ☐ Application is One Which Requires Published Legal Notice

[D] ☒ Notification and/or Concurrent Approval by BLM or SLO
 U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office

[E] ☐ For all of the above, Proof of Notification or Publication is Attached, and/or,

[F] ☐ Waivers are Attached

[3] SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.

[4] CERTIFICATION: I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

John Austin Akers

Print or Type Name

Signature

VP of Land

Title

aakers@logosresourcesllc.com

e-mail Address

04/01/2013

Date

District I
1625 N. French Drive, Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-107A
Revised August 1, 2011

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

APPLICATION TYPE
☒ Single Well
☐ Establish Pre-Approved Pools
EXISTING WELLBORE
☐ Yes ☒ No

APPLICATION FOR DOWNHOLE COMMINGLING

Logos Operating, LLC 4001 N. Butler, Bldg 7101 Farmington, NM 87401

Operator Address
Logos #6 Unit Letter G, Section 8, T23N, R8W San Juan

Lease Well No. Unit Letter-Section-Township-Range County

OGRID No. 289408 Property Code 311963 API No. 30-045-35422 Lease Type: ☒ Federal ☐ State ☐ Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	Nageezi Gallup		Basin Dakota
Pool Code	47540		71599
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	5108' - 5982'		5996'
Method of Production (Flowing or Artificial Lift)	Pumping		Pumping
Bottomhole Pressure (Note: Pressure data will not be required if the bottom perforation in the lower zone is within 150% of the depth of the top perforation in the upper zone)	Est. 1600 psi		Est. 2700 psi
Oil Gravity or Gas BTU (Degree API or Gas BTU)	Est. Oil Gravity 42		Est. Oil Gravity 42
Producing, Shut-In or New Zone	New Zone		New Zone
Date and Oil/Gas/Water Rates of Last Production. (Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data.)	Rates: Est. 60 bopd, Est. 160 mcf/d		Rates: Est. 5 bopd, Est. 20 mcf/d
Fixed Allocation Percentage (Note: If allocation is based upon something other than current or past production, supporting data or explanation will be required.)	The allocation of produced volumes will be based on flowback results and production data from the Logos 1, 2, 3, and Logos 5.		The allocation of produced volumes will be based on flowback results and production data from the Logos 1, 2, 3, and Logos 5.

ADDITIONAL DATA

Are all working, royalty and overriding royalty interests identical in all commingled zones? Yes ☒ No ☐
If not, have all working, royalty and overriding royalty interest owners been notified by certified mail? Yes ☐ No ☐
Are all produced fluids from all commingled zones compatible with each other? Yes ☒ No ☐
Will commingling decrease the value of production? Yes ☐ No ☒
If this well is on, or communitized with, state or federal lands, has either the Commissioner of Public Lands or the United States Bureau of Land Management been notified in writing of this application? Yes ☒ No ☐

NMOCD Reference Case No. applicable to this well: DHC-4605-0

Attachments:
C-102 for each zone to be commingled showing its spacing unit and acreage dedication.
Production curve for each zone for at least one year. (If not available, attach explanation.)
For zones with no production history, estimated production rates and supporting data.
Data to support allocation method or formula.
Notification list of working, royalty and overriding royalty interests for uncommon interest cases.
Any additional statements, data or documents required to support commingling.

PRE-APPROVED POOLS

If application is to establish Pre-Approved Pools, the following additional information will be required:

List of other orders approving downhole commingling within the proposed Pre-Approved Pools
List of all operators within the proposed Pre-Approved Pools
Proof that all operators within the proposed Pre-Approved Pools were provided notice of this application.
Bottomhole pressure data.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE TITLE: VP of Land DATE 4/1/2013

TYPE OR PRINT NAME John Austin Akers TELEPHONE NO. (303) 550-1877
E-MAIL ADDRESS aakers@logosresourcesllc.com



4001 N. Butler Ave
Farmington, NM 87401
Phone: (505) 215-8215
Fax: (303) 974-1767

Date: April 1, 2013

To: NMOCD

Re: Logos # 6 – Downhole Commingle Allocation

Dear NMOCD,

Logos Operating, LLC (OGRID 289408) proposes to downhole commingle the Logos #6 (API 30-045-35422) Basin Dakota and Nageezi Gallup formations. The Logos #6 commingle proposal is based on the success obtained in the Logos #2 (API 30-043-21120) and Logos #1 (API 30-043-21119) which were commingled in the Dakota, Gallup, and Mesa Verde.

The allocation formula will be based on results obtained from the flowback operations after completion. The allocation will be adjusted approximately 6 months after completion which will allow sufficient time for the frac fluid to be recovered.

Logos Operating recommends using the flowback data and future swab data to create the allocations rather than using offset production data. There is no close Dakota production in the region to base allocations on. The Logos #1 and Logos #2 offset wells do not have sufficient production data to use as allocation references. The Logos #1 and Logos #2 allocation formulas have been approved to use flowback results and swab results for the allocation percentages; therefore, Logos Operating recommends using the same allocation methodology for Logos #6.

Regards,

A handwritten signature in black ink, appearing to read "John Austin Akers", is written over a horizontal line.

John Austin Akers
Vice President of Land

RECEIVED OCD
2013 MAY - 9 P 12:31

District I
1625 N. French Dr., H-bbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-045-35423	² Pool Code 71599	³ Pool Name Basin Dakota
⁴ Property Code 311963	⁵ Property Name Logos	⁶ Well Number 6
⁷ OGRID No. 289408	⁸ Operator Name Logos Operating, LLC	⁹ Elevation 6,867'

¹⁰ Surface Location

UL or lot no. G	Section 8	Township 23N	Range 8W	Lot Idn	Feet from the 1662	North/South line North	Feet from the 1973	East/West line East	County San Juan
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¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
¹² Dedicated Acres 320	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.						

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

¹⁶										<p>¹⁷ OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</p> <p>4/1/2013</p> <p>Signature _____ Date _____</p> <p>John Austin Akers- VP of Land Printed Name</p> <p>aakers@logosresourcesllc.com E-mail Address</p> <p>¹⁸ SURVEYOR CERTIFICATION</p> <p>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</p> <p>Date of Survey _____</p> <p>Signature and Seal of Professional Surveyor: _____</p> <p>NOTE: THIS C-102 USES THE EXACT FOOTAGES FROM THE C-102 FILED COMPLETED BY DAVID RUSSELL ON OCTOBER 1, 2012. CERTIFICATE NO. 10201</p> <p>Certificate Number _____</p>

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State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

☐ AMENDED REPORT

RECEIVED OGD
2013 MAY 21

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-045-35423	² Pool Code 47540	³ Pool Name Nageezi Gallup
⁴ Property Code 311963	⁵ Property Name Logos	⁶ Well Number 6
⁷ OGRID No. 289408	⁸ Operator Name Logos Operating, LLC	⁹ Elevation 6,867'

¹⁰ Surface Location

UL or lot no. G	Section 8	Township 23N	Range 8W	Lot Idn	Feet from the 1662	North/South line North	Feet from the 1973	East/West line East	County San Juan
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¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
¹² Dedicated Acres 40	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.						

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

<div style="position: relative; width: 400px; height: 200px;"> <div style="position: absolute; top: 50px; left: 400px; border: 1px solid black; padding: 2px;">1662'</div> <div style="position: absolute; bottom: 50px; right: 50px; border: 1px solid black; padding: 2px;">1973'</div> <div style="position: absolute; top: 50px; left: 50px; width: 100px; height: 100px; border: 2px solid black;"></div> </div>	<p>¹⁷ OPERATOR CERTIFICATION</p> <p><i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</i></p> <p style="text-align: right;">4/1/2013</p> <p>Signature _____ Date _____</p> <p>John Austin Akers- VP of Land Printed Name</p> <p>aakers@logosresourcesllc.com E-mail Address</p>
	<p>¹⁸ SURVEYOR CERTIFICATION</p> <p><i>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</i></p> <p>Date of Survey _____</p> <p>Signature and Seal of Professional Surveyor: _____</p> <p>NOTE: THIS C-102 USES THE EXACT FOOTAGES FROM THE C-102 FILED COMPLETED BY DAVID RUSSELL ON OCTOBER 1, 2012. CERTIFICATE NO. 10201</p> <p>Certificate Number _____</p>